

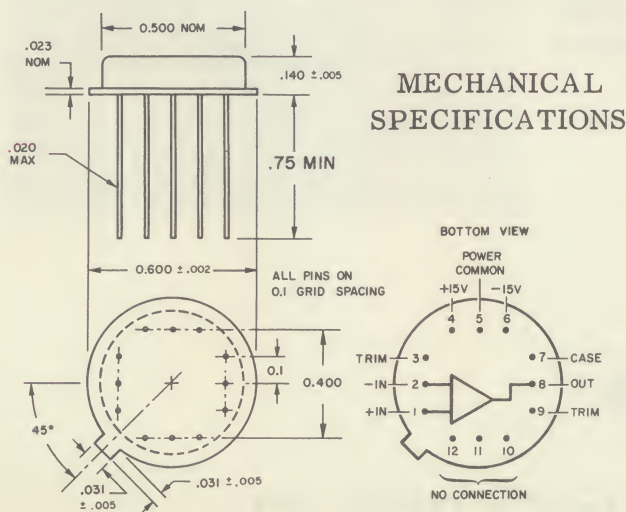


High-Performance Differential Operational Amplifier



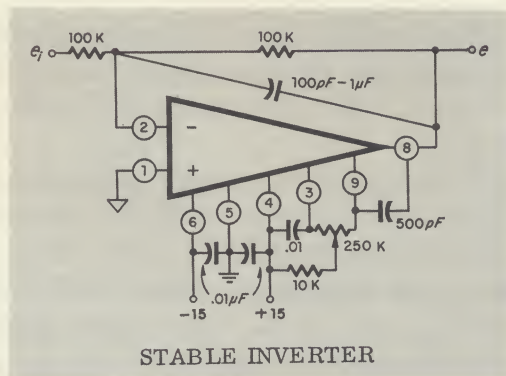
The complete amplifier is enclosed in a low-profile TO-8 transistor case. Its components and construction are of the highest quality --- all-silicon semiconductors, conservatively-rated circuit elements, and hermetic sealing in an isolated metal case (permitting driven guard connection).

**Adjustable to zero externally.

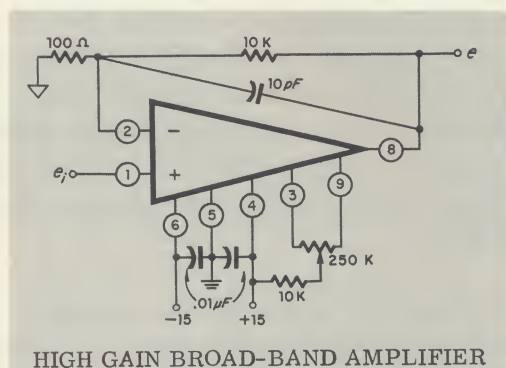


Q85AH combines the capabilities formerly available only in separate amplifiers (PP65AH for fast response, PP85A for small voltage offset, low voltage noise, high common mode rejection ratio) to accomplish a difficult task: perform in a unity gain follower circuit with full output to 100 kHz. Q85AH performs equally well in most of the standard circuits described in the voluminous Philbrick applications literature. This flexibility is achieved by "custom tailoring" of the gain vs. frequency characteristics of the amplifier by means of external capacitors.

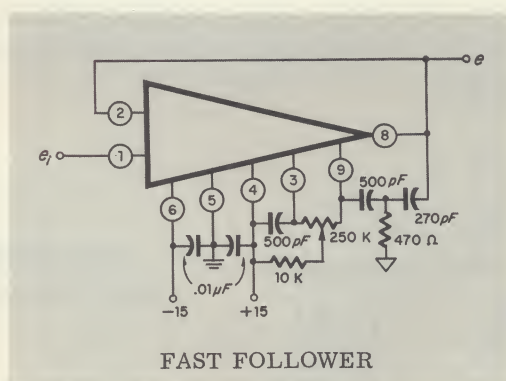
With $.01 \mu\text{F}$ between pins 3 and 4 and 500 pF between pins 8 and 9, the amplifier is docile in virtually all inverting applications, and tolerant of capacitive loading. The usual capacitor across the feedback resistor should not be forgotten.



A high-gain inverting or non-inverting amplifier (gain of 100 or higher) can be "broad-banded" by omitting the "tailoring" capacitors and using a very small feedback capacitor. Avoid capacitive loading.



With the special stabilizing network shown, a stable, fast unity-gain follower can be built. The voltage trim potentiometer and 10 kΩ resistor can be omitted if a few millivolts of voltage offset can be tolerated.



PHILBRICK RESEARCHES, INC.

ALLIED DRIVE at ROUTE 128, DEDHAM, MASSACHUSETTS 02026